

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously presented) A computer-implemented method for modifying network configuration information on a client node, the method comprising:

establishing a network connection between a client node and a host node using at least one network configuration parameter;

accessing configuration history information describing performance statistics including a total number of connections the client node has attempted with the host node, a total number of connections the client node has established with the host node, an individual session length of a connection between the client node and the host node, and an average session length of connections between the client node and the host node;

accessing policy information including a desired network connection performance rule, the desired network connection performance rule relating to the total number of connections the client node has attempted with the host node, the total number of connections the client node has established with the host node, the individual session length of the connection between the client node and the host node, and the average session length of connections between the client node and the host node;

using the configuration history information along with the policy information to determine whether the performance statistics including the total number of connections the client node has attempted with the host node, the total number of connections the client node has established with the host node, the individual session length of the connection between the client node and the host node, and the average session length of connections between the client node and the host node fail to satisfy the desired network connection performance rule; and

if it is determined that the performance statistics including the total number of connections the client node has attempted with the host node, the total number of connections the

client node has established with the host node, the individual session length of the connection between the client node and the host node, and the average session length of connections between the client node and the host node fail to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

2. (Previously presented) The computer-implemented method of claim 1, wherein accessing the policy information includes:

receiving the policy information from the host node; and  
analyzing the received policy information.

3. (Previously presented) The computer-implemented method of claim 1, wherein: establishing the network connection includes establishing a modem connection using at least one modem configuration parameter;

modifying the at least one network configuration parameter includes modifying the at least one modem configuration parameter.

4. (Previously presented) The computer-implemented method of claim 1, further comprising:

if it is determined that the performance statistics including the total number of connections the client node has attempted with the host node, the total number of connections the client node has established with the host node, the individual session length of the connection between the client node and the host node, and the average session length of connections between the client node and the host node fail to satisfy the desired network connection performance rule, modifying a plurality of the network configuration parameters; and  
establishing a second network connection between the client node and the host node using the modified plurality network configuration parameters.

5. (Original) The computer-implemented method of claim 4, wherein the at least one modem configuration parameter includes a dialed number parameter and a connection speed parameter.

6. (Original) The computer-implemented method of claim 5, wherein the at least one modem configuration parameter further includes a data compression technique parameter and a modulation technique parameter.

7. (Previously presented) The computer-implemented method of claim 1, wherein:  
establishing the network connection includes establishing an Internet connection between the client node and the host node using at least one Internet configuration parameter; and  
modifying the at least one network configuration parameter further includes modifying the at least one Internet configuration parameter to establish a second Internet connection.

8. (Original) The computer-implemented method of claim 7, wherein the at least one Internet configuration parameter includes a host Internet Protocol (IP) address parameter and a connection speed parameter.

9. (Original) The computer-implemented method of claim 8, wherein the at least one Internet configuration parameter further includes a data compression technique parameter and an encryption technique parameter.

10-12. (Cancelled)

13. (Previously presented) The computer-implemented method of claim 1, wherein the performance rule includes a rule for specifying performance criteria.

14. (Previously presented) The computer-implemented method of claim 1, wherein the policy information further includes host access information used by the client node when modifying the at least one network configuration parameter.

15. (Original) The computer-implemented method of claim 14, wherein the host access information includes at least one modem access number.

16. (Original) The computer-implemented method of claim 14, wherein the host access information includes at least one Internet Protocol (IP) address.

17. (Previously presented) The computer-implemented method of claim 1, further comprising:

terminating the network connection; and

establishing a second network connection based on the modified at least one network configuration.

18. (Original) The computer-implemented method of claim 1, further comprising sending the configuration history information to the host node.

19. (Previously presented) The computer-implemented method of claim 1, further comprising:

establishing a second network connection based on the modified at least one network parameter; and

collecting additional configuration history information on the client node that is related to the second network connection.

20-25. (Cancelled)

26. (Previously presented) A computer-readable medium having computer-executable instructions contained therein for performing a method, the method comprising:

accessing configuration history information describing performance statistics including a total number of connections the client node has attempted with the host node, a total number of connections the client node has established with the host node, an individual session length of a

connection between the client node and the host node, and an average session length of connections between the client node and the host node;

accessing policy information including a desired network connection performance rule, the desired network connection performance rule relating to the total number of connections the client node has attempted with the host node, the total number of connections the client node has established with the host node, the individual session length of the connection between the client node and the host node, and the average session length of connections between the client node and the host node;

using the configuration history information along with the policy information to determine whether the performance statistics including the total number of connections the client node has attempted with the host node, the total number of connections the client node has established with the host node, the individual session length of the connection between the client node and the host node, and the average session length of connections between the client node and the host node fail to satisfy the desired network connection performance rule; and

if it is determined that the performance statistics including the total number of connections the client node has attempted with the host node, the total number of connections the client node has established with the host node, the individual session length of the connection between the client node and the host node, and the average session length of connections between the client node and the host node fail to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

27. (Previously presented) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing the configuration history information stored on the client node.

28. (Previously presented) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing information related to a last network connection speed and specifying speed of a previous network connection between the client node and the host node.

29. (Previously presented) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing information related to a last dialed number associated with a previous network connection and specifying a previous number dialed by the client node to access the host node.

30. (Previously presented) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing configuration history information describing last Internet Protocol (IP) associated with a previous network connection, the last IP address specifying previous IP address used by the client node to access the host node.

31. (Previously presented) The computer-implemented method of claim 1, wherein:  
accessing the configuration history information includes accessing configuration history information describing performance statistics including abnormal disconnect rate of at least one previous and no longer active network connection between the client node and the host node;  
accessing policy information including a desired network connection performance rule includes accessing policy information including a desired network connection performance rule, the desired network connection performance rule relating to abnormal disconnect rate;  
using the configuration history information includes using the configuration history information along with the policy information to determine whether the abnormal disconnect rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and  
modifying the at least one network configuration parameter includes, if it is determined that the abnormal disconnect rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

32. (Previously presented) The computer-implemented method of claim 1, wherein:

accessing the configuration history information includes accessing configuration history information describing performance statistics including retain rate of at least one previous and no longer active network connection between the client node and the host node;

accessing the policy information includes accessing a desired network configuration performance rule, the desired network connection performance rule relating to retain rate;

using the configuration history information includes using the configuration history information along with the policy information to determine whether the retain rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

modifying the at least one network configuration parameter includes, if it is determined that the retain rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

33. (Previously presented) The computer-implemented method of claim 1, further comprising accessing the policy information from storage on the client node.

34. (Previously presented) The computer-implemented method of claim 1, wherein modifying the at least one network configuration parameter includes modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node so that the network connection is configured to operate as the desired network connection.

35. (Previously presented) The computer-implemented method of claim 3, wherein modifying the at least one modem configuration parameter includes establishing a second network connection with a second modem connection.

36. (Previously presented) The computer-implemented method of claim 1, wherein accessing the policy information includes accessing the policy information indicating that cost

considerations are to be prioritized in determining whether the performance statistics including the total number of connections the client node has attempted with the host node, the total number of connections the client node has established with the host node, the individual session length of the connection between the client node and the host node, and the average session length of connections between the client node and the host node fail to satisfy the desired network connection performance rule.

37. (Previously presented) The computer-implemented method of claim 1, wherein accessing the policy information includes accessing the policy information indicating that performance considerations are to be prioritized in determining whether the performance statistics including the total number of connections the client node has attempted with the host node, the total number of connections the client node has established with the host node, the individual session length of the connection between the client node and the host node, and the average session length of connections between the client node and the host node fail to satisfy the desired network connection performance rule.

38. (Previously presented) The computer-implemented method of claim 1, wherein accessing the policy information includes accessing the policy information indicating that cost and performance considerations are to be used in a predetermined weighting in determining whether the performance statistics including the total number of connections the client node has attempted with the host node, the total number of connections the client node has established with the host node, the individual session length of the connection between the client node and the host node, and the average session length of connections between the client node and the host node fail to satisfy the desired network connection performance rule.

39-57. (Cancelled)

58. (Previously presented) The computer-implemented method of claim 1, wherein:



accessing the configuration history information includes accessing configuration history information describing performance statistics including busy rate of at least one previous and no longer active network connection between the client node and the host node;

accessing policy information including a desired network connection performance rule includes accessing policy information including a desired network connection performance rule, the desired network connection performance rule relating to busy rate;

using the configuration history information includes using the configuration history information along with the policy information to determine whether the busy rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

modifying the at least one network configuration parameter includes, if it is determined that the busy rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

59. (Previously presented) The computer-implemented method of claim 1, wherein:

accessing the configuration history information includes accessing configuration history information describing performance statistics including signal-to-noise rate of at least one previous and no longer active network connection between the client node and the host node;

accessing policy information including a desired network connection performance rule includes accessing policy information including a desired network connection performance rule, the desired network connection performance rule relating to signal-to-noise rate;

using the configuration history information includes using the configuration history information along with the policy information to determine whether the signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

modifying the at least one network configuration parameter includes, if it is determined that the signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one

network configuration parameter used to establish the network connection between the client node and the host node.

60-61. (Cancelled)

62. (Previously presented) A computer-implemented method for modifying network configuration information, the method comprising:

establishing, at a host node, network connections with multiple client nodes using at least one host network configuration parameter associated with the host node, the multiple client nodes including a first client node configured to establish network connections with the host node using at least one client network configuration parameter associated with the first client node and a second client configured to establish network connections with the host node using at least one client network configuration parameter associated with the second client node;

accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node;

accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node;

accessing, at the host node, host policy information including at least one host network connection performance rule;

using the first configuration history information, the second configuration history information, and the host policy information to determine whether performance statistics including the first and second performance statistics associated with the network connections between the host node and the first and second client nodes satisfy the network connection performance rule;

if it is determined that the performance statistics associated with the network connections between the host node and the multiple client nodes fail to satisfy the network connection performance rule, modifying the at least one host network configuration parameter used to establish the network connections between the host node and the first and second client nodes;

accessing client policy information associated with the first client node including at least one client network connection performance rule associated with the first client node;

using the first configuration history information and the client policy information associated with the first client node to determine whether the first performance statistics satisfy the client network connection performance rule associated with the first client node; and

if it is determined that the first performance statistics fail to satisfy the client network connection performance rule associated with the first client node, modifying the client network configuration parameter associated with the first client node used to establish the network connections between the host node and the first client node based on the first configuration history information and the second configuration history information.

63. (Previously presented) The computer-implemented method of claim 62 further comprising:

accessing client policy information associated with the second client node including at least one client network connection performance rule associated with the second client node;

using the second configuration history information and the client policy information associated with the second client node to determine whether the second performance statistics satisfy the client network connection performance rule associated with the second client node; and

if it is determined that the second performance statistics fail to satisfy the client network connection performance rule associated with the second client node, modifying the client network configuration parameter associated with the second client node used to establish the network connections between the host node and the second client node.

64. (Previously presented) The computer-implemented method of claim 63 wherein modifying the client network configuration parameter associated with the second client node used to establish the network connections between the host node and the second client node comprises modifying the client network configuration parameter associated with the second client node used to establish the network connections between the host node and the second

client node based on the first configuration history information and the second configuration history information.

65. (Previously presented) The computer-implemented method of claim 62 wherein:  
accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including a total number of connections the first client node has attempted with the host node; and  
accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node includes accessing performance statistics including a total number of connections the second client node has attempted with the host node.

66. (Previously presented) The computer-implemented method of claim 62 wherein:  
accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including a total number of connections the first client node has established with the host node; and  
accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node includes accessing performance statistics including a total number of connections the second client node has established with the host node.

67. (Previously presented) The computer-implemented method of claim 62 wherein:  
accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including an individual session length of a connection between the first client node and the host node; and  
accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between

the host node and the second client node includes accessing performance statistics including an individual session length of a connection between the second client node and the host node.

68. (Previously presented) The computer-implemented method of claim 62 wherein:  
accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including an average session length of connections between the first client node and the host node; and  
accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node includes accessing performance statistics including an average session length of connections between the second client node and the host node.

69. (Previously presented) The computer-implemented method of claim 62 wherein:  
accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including a total number of connections the first client node has attempted with the host node, a total number of connections the first client node has established with the host node, an individual session length of a connection between the first client node and the host node, and an average session length of connections between the first client node and the host node; and

accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node includes accessing performance statistics including a total number of connections the second client node has attempted with the host node, a total number of connections the second client node has established with the host node, an individual session length of a connection between the second client node and the host node, and an average session length of connections between the second client node and the host node.

70. (Previously presented) The computer-implemented method of claim 62 wherein:

accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including, for connections established between the first client node and the host node, abnormal disconnect rate, retain rate, busy rate, and signal-to-noise rate; and

accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node includes accessing performance statistics including, for connections established between the second client node and the host node, abnormal disconnect rate, retain rate, busy rate, and signal-to-noise rate.

71. (Previously presented) At least one computer-readable storage medium having computer-executable instructions stored therein that, when executed, perform operations comprising:

establishing, at a host node, network connections with multiple client nodes using at least one host network configuration parameter associated with the host node, the multiple client nodes including a first client node configured to establish network connections with the host node using at least one client network configuration parameter associated with the first client node and a second client configured to establish network connections with the host node using at least one client network configuration parameter associated with the second client node;

accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node;

accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node;

accessing, at the host node, host policy information including at least one host network connection performance rule;

using the first configuration history information, the second configuration history information, and the host policy information to determine whether performance statistics

including the first and second performance statistics associated with the network connections between the host node and the first and second client nodes satisfy the network connection performance rule;

if it is determined that the performance statistics associated with the network connections between the host node and the multiple client nodes fail to satisfy the network connection performance rule, modifying the at least one host network configuration parameter used to establish the network connections between the host node and the first and second client nodes;

accessing client policy information associated with the first client node including at least one client network connection performance rule associated with the first client node;

using the first configuration history information and the client policy information associated with the first client node to determine whether the first performance statistics satisfy the client network connection performance rule associated with the first client node; and

if it is determined that the first performance statistics fail to satisfy the client network connection performance rule associated with the first client node, modifying the client network configuration parameter associated with the first client node used to establish the network connections between the host node and the first client node based on the first configuration history information and the second configuration history information.

72. (Previously presented) The at least one computer-readable storage medium of claim 71 further comprising:

accessing client policy information associated with the second client node including at least one client network connection performance rule associated with the second client node;

using the second configuration history information and the client policy information associated with the second client node to determine whether the second performance statistics satisfy the client network connection performance rule associated with the second client node; and

if it is determined that the second performance statistics fail to satisfy the client network connection performance rule associated with the second client node, modifying the client network configuration parameter associated with the second client node used to establish the network connections between the host node and the second client node.

73. (Previously presented) The at least one computer-readable storage medium of claim 72 wherein modifying the client network configuration parameter associated with the second client node used to establish the network connections between the host node and the second client node comprises modifying the client network configuration parameter associated with the second client node used to establish the network connections between the host node and the second client node based on the first configuration history information and the second configuration history information.

74. (Previously presented) The at least one computer-readable storage medium of claim 71 wherein:

accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including a total number of connections the first client node has attempted with the host node; and

accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node includes accessing performance statistics including a total number of connections the second client node has attempted with the host node.

75. (Previously presented) The at least one computer-readable storage medium of claim 71 wherein:

accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including a total number of connections the first client node has established with the host node; and

accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node includes accessing performance statistics including a total number of connections the second client node has established with the host node.



76. (Previously presented) The at least one computer-readable storage medium of claim 71 wherein:

accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including an individual session length of a connection between the first client node and the host node; and

accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node includes accessing performance statistics including an individual session length of a connection between the second client node and the host node.

77. (Previously presented) The at least one computer-readable storage medium of claim 71 wherein:

accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including an average session length of connections between the first client node and the host node; and

accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node includes accessing performance statistics including an average session length of connections between the second client node and the host node.

78. (Previously presented) The at least one computer-readable storage medium of claim 71 wherein:

accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including a total number of connections the first client node has attempted with the host node, a total number of connections the first client node has established with the host node, an individual session length

of a connection between the first client node and the host node, and an average session length of connections between the first client node and the host node; and

accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node includes accessing performance statistics including a total number of connections the second client node has attempted with the host node, a total number of connections the second client node has established with the host node, an individual session length of a connection between the second client node and the host node, and an average session length of connections between the second client node and the host node.

79. (Previously presented) The at least one computer-readable storage medium of claim 71 wherein:

accessing, at the host node, first configuration history information describing first performance statistics of at least one previous and no longer active network connection between the host node and the first client node includes accessing performance statistics including, for connections established between the first client node and the host node, abnormal disconnect rate, retain rate, busy rate, and signal-to-noise rate; and

accessing, at the host node, second configuration history information describing second performance statistics of at least one previous and no longer active network connection between the host node and the second client node includes accessing performance statistics including, for connections established between the second client node and the host node, abnormal disconnect rate, retain rate, busy rate, and signal-to-noise rate.

80-84. (Cancelled)